



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/574,190

02/07/2007

John Murtagh

5204-061060

7467

28289 7590 02/04/2009
THE WEBB LAW FIRM, P.C.
700 KOPPERS BUILDING
436 SEVENTH AVENUE
PITTSBURGH, PA 15219

EXAMINER

WOO, KUO-KONG

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

02/04/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/574,190	Applicant(s) MURTAGH ET AL.	
	Examiner KUO WOO	Art Unit 4133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 and 25-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 and 25-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/6/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the applicants' communication filed on 02/07/2007; Claims (3, 4, 7-19 and 21) have been amended, Claim 27 has been added and claim (22-24) have been cancelled. In virtue of this communication, claims (1-21 and 25-27) are currently presented in the instant application.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 3/6/2007 in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Priority

3. Receipt is acknowledged of paper submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file. This application is a 371 of PCT/IE05/00114 on 10/12/2005 and claims to foreign priority number IRELAND S2004/0693, filed on 10/14/2004.

Drawings

4. The drawings submitted on 2/07/2007. These drawings are reviewed and accepted by the examiner.

Claim Objections

5. Claim 26 is objected to because of the following informalities. Unacceptable Dependent Claim Wording "as claimed in claim 23" which has been cancelled. In examiner's view, the subject claim is assumed to be read as claimed in claim "25" which dependent on. Appropriate correction is required.

6. Objections for all the dependent claims (2-20).

A proper dependent claim should incorporate all the limitations of the parent claim. When referencing the parent claim, applicant should write “the method.... As claimed in claim X further comprising....” to make clear that the dependent claim incorporates all limitations of the parent claim. Appropriate correction is required.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 21 and 27 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 20 is drawn to functional descriptive material NOT claimed as residing on a computer readable medium. MPEP 2106.IV.B.1 (a) (Functional Descriptive Material) states:

“Data structures not claimed as embodied in a computer-readable medium are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer.”

“Such claimed data structures do not define any structural or functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure’s functionality to be realized.”

Claims 21 and 27 while defining a computer program comprising program instructions does not define a “computer-readable medium” and is thus non-statutory for that reasons. A computer program, an algorithm, a medium, a program providing medium, a memory, etc. can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests

Art Unit: 4133

amending the claim to embody the program on “computer-readable storage medium” in order to make the claim statutory.

“In contrast, a claimed computer-readable medium encoded with the data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory.” - MPEP 2106.IV.B.1 (a)

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

10. Claims 1-20 and 25-26 are rejected under 35 U.S.C. 102 (e) as being anticipated by Wilson et al. (US Patent Number 7395,077 B2).

Regarding claim 1,” A method of managing SMS messages in a first mobile operator network, said network comprising a plurality of subscribers and a Short Message Service Centre (SMSC), the method comprising the steps of: starting a delivery attempt of the SMS message from a first subscriber to a second subscriber via said SMSC” Wilson discloses (Abstract, the arrangement being such that any text messages intended by the sender (1) to be delivered to the said subscriber, as intended receiver thereof, are directed to the message processing means which then implements the delivery mode previously selected by the subscriber);

“Intercepting transparently to the SMSC said SMS message delivery attempt from the first subscriber in the network before delivery of said SMS message” Wilson discloses (Col 4, lines 7-10, Mobile Terminated (MT) where the sender subscribes to network A and the recipient to network B, and so the MO text message first passes through the SMSC of network A, where it is converted to MT format);

“Routing said intercepted SMS message delivery attempt via a smart services control node in the network” Wilson discloses (Col 6, lines 8-9, this query is caused by network B to pass through an SMS router [13].);

“Examining said message delivery attempt for possible invocation of a smart service to said SMS message”; Wilson discloses (Col 6, lines 9-12, if the router detects that the message is for a recipient who has configured special delivery settings, e.g. delivery by email to an email account [9] or by fax to a fax machine [10]);

“Invoking said smart services for said SMS message destined to said subscriber in response to said examination” Wilson discloses (Col 6, lines 11-13, then the router responds to the routing query, giving the address of the SMS Router [3] in network), wherein router detects that the message and responds accordingly as smart service control.

Regarding claim 2, “between a subscriber of the first mobile operator network and another subscriber of a second mobile operator network in a telecommunications system, the method comprising the steps of: delivering a

SMS message from said first subscriber in said first mobile operator network to said subscriber of said second mobile operator network” Wilson discloses (Col 6, lines 3-5, With reference to FIG. 2, a message sender [1] is connected to a telecommunications network A and wishes to send a text message to a recipient [2] who subscribes to network B);

“Intercepting a SMS message inbound delivery attempt in said second mobile operator network before delivery of said SMS message” Wilson discloses (Col 6, lines 8-9, This query is caused by network B to pass through an SMS router);

“Routing said intercepted SMS message delivery attempt via a smart services control node in second operator mobile network”; Wilson discloses (Col 6, lines 9-12, If the router detects that the message is for a recipient who has configured special delivery settings, e.g. delivery by email to an email account [9] or by fax to a fax machine [10]);

“Examining said message delivery attempt for possible invocation of a smart service to said SMS message; Wilson discloses (Col 6, lines 12-13, then the router responds to the routing query, giving the address of the SMS Router [3] in network B);

“Invoking said smart services for said SMS message destined to said subscriber of said second mobile operator network in response to said examination” Wilson discloses (Col 6, lines 14-17, the message then passes from the SMSC [12] to the SMS Router [3]. As before, the recipient may configure

delivery options in the SMS router [3] by means of commands (e.g. using USSD) sent to the router via the HLR [4].), wherein subscriber B will performs same as subscriber A as illustrated herein.

Regarding claim 3,"wherein the step of intercepting includes intercepting an inbound HLR query associated with said message delivery attempt. Wilson discloses (Col 6, lines 15-22, the recipient may configure delivery options in the SMS router [3] by means of commands (e.g. using USSD) sent to the router via the HLR [4]. If the router detects that the message is for a recipient who has configured special delivery settings, e.g. delivery by email to an email account [9] or by fax to a fax machine [10], then the router can perform delivery via the relevant interface in addition to, or instead of, SMS delivery), wherein message delivery through HLR query associated by commands.

Regarding claim 4," wherein the step of intercepting includes intercepting an inbound HLR query associated with said message delivery attempt and examining said intercepted HLR query such that said HLR query provides an indication that a smart service needs to be applied to said SMS message and route the SMS message to the smart services control node" Wilson discloses (Col 2, lines 65-67, The message processing means may be, for example, an HLR or other signaling means, but preferably the message processing means is an SMS router), wherein a smart service node is an SMS router is invoking by HLR query.

Regarding claim 5, “ wherein said indication from the HLR Query is associated with one or more of the following: a SMS service, a specific subscriber directory number (MSISDN), a directory number in the HLR Query matches a specific number prefix, a specific SMSC identified by its PLMN network address, a foreign SMSC network address” Wilson discloses (Col 2, lines 55-64, HLR (home location register) and a signal processing means, said signal processing means being configured in association with the HLR to intercept routing queries sent to the HLR of said network from another network, for receiving a text message from such another network, to communicate with the HLR but to provide a modified address which will cause the text message from said another network to be sent to the message processing means which will then effect delivery in accordance with at least one previously selected mode of delivery), wherein a process provides modified address to deliver message from one network to another network.

As to claim 6 has limitations and phrase of alternative or similar to those treated in the above claim 5 rejection(s), and are met by the references as discussed above.

Regarding claim 7, “wherein the step of intercepting said message delivery attempt is based on a condition that said query originated from said SMSC or another mobile network” Wilson discloses (Col 2, lines 55-64, HLR (home location register) and a signal processing means, said signal processing means being configured in association with the HLR to intercept routing queries

Art Unit: 4133

sent to the HLR of said network from another network, for receiving a text message from such another network, to communicate with the HLR but to provide a modified address which will cause the text message from said another network to be sent to the message processing means which will then effect delivery in accordance with at least one previously selected mode of delivery), wherein delivery attempt is based on a condition that said query originated from said SMSC or another mobile network.

Regarding claim 8, "comprising the step of routing said SMS message from said smart message control node to said real location address wherein said SMS message is routed to said real network location address from an address stored in said smart services control node previously obtained from said intercepted HLR query "Wilson discloses (Col 1, lines 55-58, SMS Routers may implement throttling, load balancing, address translation and other facilities within the network to improve the efficiency or scope of services offered to subscribers), wherein an address stored in SMS router previously obtained from intercepted HLR query.

Regarding claim 9, "comprising the step of terminating said SMS message delivery attempt in the said smart services control node when the said smart service requires that the said SMS message is not delivered to the said subscriber of the said second operator network" Wilson discloses (Col 1, lines 52-58, Wilson discloses (Col 6, lines 12-13, traffic may be directly delivered to the recipient, and only if the recipient is unreachable is the message then passed

Art Unit: 4133

on to a store-and-forward device instead. SMS Routers may implement throttling, load balancing, address translation and other facilities within the network to improve the efficiency or scope of services offered to subscribers.), wherein undeliverable message passed to smart node for future use.

Regarding claim 10, "comprising the step of terminating said SMS message delivery attempt when said condition of said intercepted delivery attempt indicates in said second operator network that said SMS message originates from a barred originating entity belonging to another network" Wilson discloses (Col 3, lines 53-55, A key feature of the present invention is that it permits recipients of text messages to enjoy some control over how and/or when messages are delivered to them) and (Col 4, lines 51-57, Once the MT text message has arrived at an SMS router in network B, it may be handled in essentially the same way as for the MO case, with the exception that the message is not ever routed to the SMSC in network B. The SMSC for this message is in network A, and if direct delivery to the recipient is attempted but unsuccessful, then control is passed back to the originating SMSC), wherein both MO and MT which may reside in second network have some control over the message delivery.

Regarding claim 11, "comprising the step of triggering the execution of smart service logic associated with said smart services SMS control node in response to condition based on the content of said SMS message" Wilson discloses (Col 3, lines 49-52, Filtering according to textual content could allow

Art Unit: 4133

the user to specify key words, names or phrases that would trigger certain delivery rules) and (Col. 5, lines 3-5, The HLR may then be configured to pass these particular commands to the SMS Router(s) in order to configure the desired delivery options), wherein based on the content of messages, trigger SMS router execute some delivery option.

Regarding claim 12 has limitations and phrase of alternative or similar to those treated in the above claim 11 rejection(s), and are met by the references as discussed above.

Regarding claim 13, "comprising the step of generating a unique identifier for said SMS message at said smart services SMS control node" Wilson discloses (Col 6, lines 14-22, the message then passes from the SMSC [12] to the SMS Router [3]. As before, the recipient may configure delivery options in the SMS router [3] by means of commands (e.g. using USSD) sent to the router via the HLR [4]. If the router detects that the message is for a recipient who has configured special delivery settings, e.g. delivery by email to an email account [9] or by fax to a fax machine [10], then the router can perform delivery via the relevant interface in addition to, or instead of, SMS delivery), wherein special setting for SMS message from smart service node (SMS router).

Regarding claim 14, "comprising the step of generating a unique identifier for said SMS message at said smart services SMS control node, wherein said unique identifier is generated from one or more of the following SMS message parameters: Originating Address, Destination Address, message fragment

Art Unit: 4133

number, SMSC address or SMS Centre timestamp” Wilson discloses (Col. 5, lines 20-36, Using the techniques described above, potential recipients of messages could be offered services including but not limited to normal message delivery delayed message delivery during certain hours Diversion of messages to fixed line when in home cell diversion of messages to an alternative mobile number diversion of messages on a time of day basis conversion of messages to email, fax or other medium conversion of messages to voice for delivery in a voice call archiving of received messages special handling of certain messages according to origination number, e.g. white lists, black lists removal of `spam` messages filtering of messages by address information or content filtering or barring of messages with unsuitable content any combination of the above),wherein SMS router generate both MO and MT addresses, timestamp and special handling information about SMS message.

Regarding claim 15 has limitations and phrase of alternative “or” similar to those treated in the above claim 14 rejection(s), and are met by the references as discussed above.

Regarding claim 16, “comprising the step of comparing the generated unique identifier with unique identifiers for each SMS message delivery attempt processed by said smart services SMS node for detecting a subsequent attempt of an SMS message from a remote SMSC after the first delivery attempt” Wilson discloses (Col 4, lines 43-47, The SMS Router may then respond on behalf of the HLR, but instead of directing the MT text message to the destination mobile as

the HLR would have done, it may direct the MT text message to be routed to an SMS Router in Network B, which SMS Router is configured to implement the invention), wherein SMS message is delivered to second network B by smart service node SMS router.

Regarding claims 17 and 18, have limitations and phrase of alternative “or” similar to those treated in the above claim 16 rejection(s), and are met by the references as discussed above.

Regarding claim 19, “comprising the steps of generating a database of unique identifiers in said storage memory and deleting said stored unique identifiers after a preset period of time” Wilson discloses (Col 1, lines 64-66, also some networks support various text prefixes within the body of the message to control such features as delayed or timed delivery), wherein preset time of delivery can be added as unique identifier to SMS.

Regarding to claim 20 has limitations and phrase of alternative “or” similar to those treated in the above claim 1 rejection(s), and are met by the references as discussed above.

Regarding claims 25 and 26, have limitations and phrase of alternative or similar to those treated in the above claim 1 rejection(s), and are met by the references as discussed above.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 4133

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 21 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson as applied to claim 1-20 above in view of Warsta et al. (US Patent Application Number 2004/0181550 A1).

Regarding to claim 21 and 27, Wilson discloses SMS router (smart service node) and message process from first network to second network. However, Wilson does not explicitly disclose a computer program comprising program instructions for causing a computer to perform the method of claim 1 and 20

In an analogous art, Warsta discloses (§64, using the description provided herein, the invention may be implemented as a machine, process, or article of manufacture by using standard programming and/or engineering techniques to produce programming software, firmware, hardware or any combination thereof. Any resulting program(s), having computer-readable program code, may be embodied on one or more computer-usable media, such as disks, optical disks, removable memory devices, semiconductor memories such as RAM, ROM, PROMS, etc. Articles of manufacture encompassing code to carry out functions associated with the present invention are intended to encompass a computer program that exists permanently or temporarily on any computer-usable medium or in any transmitting medium which transmits such a Program), wherein computer program execute the process for SMS value added service.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to be motivated to implement the handover of Wilson teaching after modifying it to incorporate tunnel technology of Warsta provides content adaptations for all known network device capabilities are cached for future use (see abstract). Rationales for arriving at a conclusion of obviousness suggested by the Supreme Court's decision in KSR include motivation is combining prior art elements according to known method to yield predictable result.

Conclusion

13 The prior art s are made of record and not relied upon is considered pertinent to applicant's discloses.

- US Patent Number 7,003,307B1 to Kupsh et al. discloses a similar invention as recited in claim 1.
- US Patent Application Number 2004/0244102 A1 to Benzon et al. discloses a similar invention as recited in claim 2.
- US Patent Application Number 2002/0077133 A1 to Mizell et al. discloses a similar invention as recited in claim 1.
- US Patent Application Number 2006/0148495 A1 to Wilson discloses a similar invention as recited in claim 1.

Art Unit: 4133

- US Patent Application Number 2004/0180678 A1 Smith et al. discloses a similar invention as recited in claim 1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KUO WOO whose telephone number is (571)270-7266. The examiner can normally be reached on Monday through Friday 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Abul Azad can be reached on 571-272-7599. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KUO WOO/

Examiner, Art Unit 4133

/ABUL AZAD/

Supervisory Patent Examiner, Art Unit 4133